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**b.) Claims**

Please cancel claims 12 and 28 without prejudice, and amend the claims as follows:

1. (Currently Amended) A method for the reduction of fouling of process components within a liquid hydrocarbon stream comprising the steps of:

applying an a constant electric charge to an object within ~~the~~ a flow path of said liquid hydrocarbon stream, wherein ~~said electric charge is applied substantially continuously throughout said process, and wherein~~ said liquid hydrocarbon stream contains contaminants;

flowing said liquid hydrocarbon stream past said constant electric charge; and,

adjusting the magnitude of said constant electric charge while continuing said flowing step.

2. (Withdrawn) The method according to Claim 1, wherein said step of applying an electric charge to an object comprises applying an electric charge to an object upstream to downstream of a heat exchanger.

3. (Withdrawn) The method according to Claim 2, wherein said step of applying an electric charge to an object upstream of a heat exchanger comprises applying an electric charge to an auxiliary device immediately upstream of a heat exchanger.

4. (Withdrawn) The method according to Claim 3 wherein said step of applying an electric charge to an auxiliary device immediately upstream of a heat exchanger comprises applying an electric charge to an object selected from the group consisting of a vessel, a section of pipe, and a spare heat exchanger.

5. (Currently Amended) The method according to Claim 1, wherein said object is ~~step of applying an electric charge to an object comprises applying an electric charge to~~ a heat exchanger.

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6. (Currently Amended) The method according to Claim 5, wherein said step of applying an electric charge to ~~a heat exchanger~~ comprises applying an electric charge to the chassis or shell of said heat exchanger.

7. (Withdrawn) The method according to Claim 5, wherein said step of applying an electric charge to a heat exchanger comprises applying an electric charge to baffles of said heat exchanger.

8. (Withdrawn) The method according to Claim 5, wherein said step of applying an electric charge to a heat exchanger comprises applying an electric charge to a floating head of said heat exchanger.

9. (Withdrawn) The method according to Claim 5 wherein said step of applying an electric charge to a heat exchanger comprises applying an electric charge to one or more tubes or to the tube bundle of said heat exchanger.

10. (Withdrawn) The method according to Claim 1 wherein said step of applying an electric charge to an object comprises applying an electric charge to a slurry settler.

11. (Withdrawn) The method according to Claim 10 wherein said step of applying an electric charge to a slurry settler comprises applying an electric charge to the conical section of a slurry settler.

12. (Canceled)

13. (Withdrawn) The method of Claim 1 wherein said step of applying an electric charge comprises applying a modulated electric charge.

14. (Previously Presented) The method of Claim 1, further comprising determining the level of contaminants in the liquid hydrocarbon stream.

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15. (Previously Presented) The method of Claim 14 wherein said step of determining utilizes measurement of the turbidity of the fluid stream or an analytical measurement indicative of contaminant concentration of the liquid hydrocarbon stream.

16. (Withdrawn) The method of Claim 1 wherein said step of applying an electric charge comprises applying an attractive electric charge.

17. (Withdrawn) The method of Claim 1 wherein said step of applying an electric charge comprises applying a repulsive electric charge.

18-26. (Canceled).

27. (Currently Amended) A method for improved hydrocarbon refining efficiency comprising the steps of:

    catalytically cracking a liquid hydrocarbon mixture to produce an output mixture enhanced in low molecular weight liquid hydrocarbons relative to said hydrocarbon mixture;

    separating by distillation said output mixture into petroleum fractions;

    drawing a liquid hydrocarbon stream from said petroleum fractions;

    flowing said liquid hydrocarbon stream through a heat exchanger;

    repeating said step of separating or said steps of catalytically cracking and separating on said liquid hydrocarbon stream;

    applying ~~an a~~ a constant electric charge to an object within ~~the a~~ flow path of said liquid hydrocarbon ~~stream, wherein said electric charge is applied substantially continuously throughout said process;~~

    flowing said liquid hydrocarbon stream past said constant electric charge; and [[,]]

    adjusting the magnitude of said constant electric charge while continuing said flowing step.

28. (Canceled)